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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,832	06/04/2001	Shunpei Yamazaki	SEL 261	5423

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EXAMINER

NGUYEN, JENNIFER T

ART UNIT PAPER NUMBER

2674

DATE MAILED: 06/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/873,832

Applicant(s)

YAMAZAKI ET AL.

Examiner

Jennifer T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-22 is/are allowed.
- 6) ☒ Claim(s) 1-12, 23-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, in claims 13 and 18, the element "an image signal amplifying circuit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 8-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (U.S. Patent No. 6,535,207).

Regarding to claims 1 and 9, referring to Figs. 1 and 3, Hiroki teaches a display device (101) comprising: a gamma correction circuit (106-108); an image signal processing circuit (102) connected with an output line of said gamma correction circuit (106-108); and a photosensor (CCD11) (Fig. 3) for changing an output voltage of the gamma correction circuit (106-108) in

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accordance with a brightness of a surrounding (col. 1, lines 62-67, col. 2, lines 6-22, col. 4, lines 48-67 and col. 5, lines 1-67).

Hiroki differs from claims 1 and 9 in that he does not specifically teach a plurality of photosensors for changing an output voltage of the gamma correction circuit. However, it would have been obvious to obtain a plurality of photosensors in order to obtain the ambient light signal more efficient and accurate.

Regarding claims 2 and 10, Hiroki further teaches the display device is a liquid crystal display device (col. 1, lines 8-39 and col. 3, lines 40-67).

Regarding claims 4, 8, and 12, Hiroki further teaches the display device is incorporated into a projector (col. 1, lines 8-39 and col. 3, lines 40-62).

3. Claims 3, 5-7, 11, 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroki (U.S. Patent No. 6,535,207) in view of McCartney, Jr. et al. (U.S. Patent No. 5,831,693).

Regarding claims 3, 7, 11, 29 and 34, Hiroki differs from claims 3, 7, 11, 29 and 34 in that he does not specifically teach the photosensors has photoelectric conversion layer comprising amorphous silicon. However, McCartney teaches photosensors has photoelectric conversion layer comprising amorphous silicon (col. 3, line 55 to col. 4, line 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the photosensors has photoelectric conversion layer comprising amorphous silicon as taught by McCartney in the system of Hiroki in order to improve the brightness correction function.

Regarding claims 5, 26, and 31, referring to Figs. 1 and 3, Hiroki further teaches a display device (101) comprising: a gamma correction circuit (106-108); an image signal

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processing circuit (102) connected with an output line of said gamma correction circuit (106-108); and a photosensor (CCD11) for changing an output voltage of the gamma correction circuit (106-108) in accordance with a brightness of a surrounding (col. 1, lines 62-67, col. 2, lines 6-22, col. 4, lines 48-67 and col. 5, lines 1-67).

Hiroki differs from claims 5, 26, and 31 in that he does not specifically teach a first substrate, a second substrate, and plurality of photosensors are formed on second substrate. However, McCartney, Jr. teaches a first substrate (32); a second substrate (29) and a plurality of photosensors (12) are formed on second substrate (29) (col. 3, lines 1-65 and col. 4, lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the first substrate, the second substrate, and plurality of photosensors are formed on second substrate as taught by McCartney, Jr. in the system of Hiroki in order to obtain provide a more effective light sensing approach onto the display glass.

Regarding claim 6, Hiroki further teaches the display device is a liquid crystal display device (col. 1, lines 8-39 and col. 3, lines 40-67).

Regarding claim 23, referring to Figs. 1 and 3, Hiroki also teaches a display device (101) comprising: a gamma correction circuit (106-108); an image signal processing circuit (102) connected with an output line of said gamma correction circuit (106-108); and a photosensor (CCD11) for changing an output voltage of the gamma correction circuit (106-108) in accordance with a brightness of a surrounding (col. 1, lines 62-67, col. 2, lines 6-22, col. 4, lines 48-67 and col. 5, lines 1-67).

Hiroki differs from claim 23 in that he does not specifically teach the photosensor has a photoelectric conversion layer comprising amorphous silicon. However, McCartney, Jr. teaches a

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plurality of photosensors (12) has a photoelectric conversion layer comprising amorphous silicon (col. 3, lines 45-67 and col. 4, lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the plurality of photosensors has a photoelectric conversion layer comprising amorphous silicon as taught by McCartney, Jr. in the system of Hiroki in order to obtain the ambient light signal more efficient and accurate and result in a cost saving by reducing the part count of the system (i.e., luminosity correction filter).

Regarding claim 24, Hiroki further teaches the display device is a liquid crystal display device (col. 1, lines 8-39 and col. 3, lines 40-67).

Regarding claims 27, 28, 32 and 33, Hiroki inherently teaches the pixel portion has at least a pixel electrode, a liquid crystal layer, and a counter electrode (col. 1, lines 8-21).

Regarding claim 25, 30, and 35, Hiroki further teaches the display device is incorporated into a projector (col. 1, lines 8-39 and col. 3, lines 40-62).

4. Claims 13-22 are allowed.

5. The prior art made of record and not relied upon is considered to pertinent applicant's disclosure.

Naito et al. (U.S. Patent No. 6,297,791) teaches adjustment method of display device.

Hino (U.S. Patent No. 5,956,015) teaches correcting color display based upon ambient light.

Foley et al. (U.S. Patent No. 6,271,813) teaches dynamic purity correction.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**.

The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC. 20231

**Or faxed to: 703-872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Jennifer T. Nguyen  
Patent Examiner  
Art Unit 2674



**RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**